

NMCP COVID-19 Report #12: Friday, 08 May 2020

Prepared By: Tracy Shields, MSIS, AHIP <tracy.c.shields2.civ@mail.mil>

Reference Medical Librarian; Naval Medical Center Portsmouth, Library Services

Disclaimer: I am not a medical professional. This document is current as of the date noted above. While I make every effort to find and summarize available data, things are changing rapidly, with new research and potentially conflicting literature published daily. Best practice and evidence are constantly shifting during this international public health crisis.

Reports are biweekly, planned for Tuesdays and Fridays.

Statistics

Global 3,866,642 confirmed cases and 270,118 deaths in 187 countries/regions

United States top 5 states (Virginia is ranked 16th)

	TOTAL	NY	NJ	MA	IL	CA
Confirmed Cases	1,256,972	327,469	133,991	73,721	70,871	62,360
Recovered	NA	55,547	15,642	NA	NA	NA
Deaths	75,670	26,144	8,807	4,552	3,111	2,546
Tested	8,105,513	1,089,916	292,658	351,632	379,043	842,874

[JHU CSSE](#) as of 1000 EDT Friday, 08 May 2020

NA: not all data available

Navy (Department of Defense)

	TOTAL	MIL	CIV	DEP	CTR
Cases	1,684	1,456	138	46	44
Hospitalized	22	10	6	1	5
Recovered	985	668	169	80	68
Deaths	8	1	5	0	2
Cumulative*	2,677	2,125	312	126	114

*cumulative total = active + recovered + deaths

[DoD](#) dated Thursday, 07May 2020

<i>Virginia</i>	Total	Chesapeake	Hampton	Newport News	Norfolk	Portsmouth	Suffolk	Virginia Beach
Cases	22,342	316	135	144	274	194	209	469
Hospitalized	3,059	68	28	35	50	37	39	84
Deaths	812	9	3	10	5	8	19	17

[VA DOH](#) as of 1000 EDT Friday, 08 May 2020

Quarantine

Guidelines for Healthcare Workers (HCWs)

As of this writing, the CDC guidance for return-to-work for HCWs focuses on those with suspected or confirmed COVID-19, and those asymptomatic but had a laboratory-confirmed positive result for COVID-19 in a US setting ([CDC](#) [hwc]). The CDC also has operational considerations for HCWs exposed or infected with COVID-19 in non-US settings. In that guidance, the CDC recommends:

"Ideally, HCWs who had a high-risk exposure should be restricted from work and remain quarantined with active monitoring for COVID-19 symptoms for 14 days after the date of last exposure. should be restricted from work and remain quarantined with active monitoring for COVID-19 symptoms for 14 days after the date of last exposure. If at any time the worker develops fever or symptoms, they should undergo medical evaluation and COVID-19 testing, if indicated. Those who test negative should continue to be restricted from work, actively monitored and may return to work at the end of the monitoring period if symptoms are resolved. Those HCWs who remain asymptomatic over the monitoring period may likewise return to work after 14 days." ([CDC](#) [nonUS])

The European Centre for Disease Prevention and Control has similar guidance to the CDC for contact tracing and isolation of HCWs with low- or high-risk exposure to COVID-19 ([ECDC](#)). The WHO offers a checklist for risk assessment and management for HCWs exposure ([WHO](#)).

The Evidence

The 14-day quarantine period for COVID-19 appears to be based on the incubation period of SARS-CoV-2, which was determined largely by a pooled analysis of 181 confirmed cases reported between 04 January 2020 and 24 February 2020 in China ([Ann Intern Med](#)). These cases were found via news reports and press releases from areas with no known community transmission outside of the known epicenter of Wuhan; time to possible exposure, symptom onset were recorded and then analyzed using an assumed log-normal distribution incubation time like other acute respiratory viral infections. The model was fitted to the recorded observations. The authors note:

"Among those who are infected and will develop symptoms, we expect 101 in 10,000 (99th percentile, 482) will do so after the end of a 14-day monitoring period (Table 2 and Figure 3) and our analyses do not preclude this estimate from being higher. Although it is essential to weigh the costs of extending active monitoring or quarantine against the potential or perceived costs of failing to identify a symptomatic case, there may be high-risk scenarios (for example, a health care worker who cared for a COVID-19 patient while not wearing personal protective equipment) where it could be prudent to extend the period of active monitoring." ([Ann Intern Med](#))

Previous studies estimated similar incubation periods: an analysis of 88 confirmed cases outside Wuhan showed a mean incubation period of 6.4 days (95% CI: 5.6–7.7 days), with a range of 2.1 to 11.1 days ([Euro Surveill](#)); and another analysis of 158 confirmed cases outside Wuhan estimated a median incubation period of 5.0 days (95% CI: 4.4–5.6 days), with a range of 2 to 14 days ([J Clin Med](#)). More recently, a larger study of the first 425 patients confirmed with COVID-19 in Wuhan found a mean incubation period of 5.2 days (95% CI: 4.1–7.0 days) ([NEJM](#)).

One potential problem with these estimates is that they are based on publicly available case data from early cases in China, a country not exactly known for being open and forthcoming with accurate, unbiased information.

These estimates, however, do align with other known human coronaviruses such as SARS-CoV and MERS-CoV (EMC/2012). In a Toronto-based study of SARS-CoV, the mean incubation period was 5 days (median 4 days; range 2–10 days) ([CMAJ](#)). An analysis of MERS-CoV estimated a mean incubation period of 6.9 days (95% CI: 6.3–7.5 days) for cases in South Korea and 5.0 days (95% CI: 4.0–6.6 days) among cases in Saudi Arabia ([Sci Rep](#)). A 2009 systematic review of incubation periods of acute respiratory viral infections, including human coronavirus and SARS, reported similar incubation periods ([Lancet Infect Dis](#)).

History of Quarantine

The practice of quarantine or isolation of infected persons dates back centuries. In 549, the Byzantine emperor Justinian instituted a law to hinder and isolate people coming from bubonic plague infested regions ([PBS](#)). Later examples of isolation include China detaining plague-stricken sailors and foreign travelers in the 600s, and restrictions of lepers to special houses or colonies to separation from society ([PBS](#)).

Quarantine as a formal strategy to control the spread of infectious diseases was first introduced in 1377 in modern day Dubrovnik, Croatia in response to the black plague ([Emerg Infect Dis](#)). Ships traveling from areas of plague were required to stay offshore for 30 days before docking – anyone healthy left after that time was allowed onshore. Thirty was later extended to 40 days, giving rise to the term quarantine, from the Italian 'quaranta' meaning 40 ([ScienceAlert](#)). The reason behind the 40 days length for isolation is unknown, but may have been based on Hippocrates theories, Pythagorean theory of numbers, or because of biblical significance ([Emerg Infect Dis](#)).

In the United States, the first uses of quarantine as a public health measure were in New York City; in 1738, Bedloe's Island, the location of the Statue of Liberty, was designated a quarantine station ([WashPo](#)). Continued outbreaks of yellow fever led Congress to pass federal quarantine legislation in 1878 ([CDC](#) [hoq]). The list of diseases subject to federal isolation and quarantine law (revised at different times by executive order) includes cholera, plague, smallpox, yellow fever, and now COVID-19 ([HHS](#)).

Summaries from Other Sources

[CEBM](#): Is a 14-day quarantine effective against the spread of COVID-19? (06 April 2020)

"Effectiveness of quarantine during a viral outbreak relies on the timing and accuracy of the quarantine period, as well as the ability of individuals and health care providers to follow quarantine procedures. Current evidence to inform quarantine is limited, and COVID-19 infection trends raise critical questions about implementation effectiveness."

[CEBM](#): Is oxygen an effective treatment option to alleviate the symptoms of breathlessness for patients dying with COVID-19 and what are the potential harms? (07 May 2020)

"There is no existing research evidence involving patients with COVID-19 to directly inform the use of oxygen therapy in the management of breathlessness for dying patients. For patients with COVID-19, there is no evidence of benefit of oxygen therapy in the absence of hypoxemia. There may be a role for its use to wean patients with COVID-19 from ventilator support. If oxygen therapy is used, existing guidelines contain recommendations for the management of oronasal face masks, the potential adverse effects of oxygen therapy in the palliative care setting (e.g. impaired communication between patient and family) and the need to balance patient factors with cost effectiveness, resources and safety."

Selected Primary Literature

Recent – peer-reviewed; published within the last 7 days of report date

[JAMA](#): Surgery in a Time of Uncertainty: A Need for Universal Respiratory Precautions in the Operating Room (07 May 2020)

In this Viewpoint article, the author suggests: "Facilities should consider adoption of a universal precaution protocol for respiratory infections in the OR [operating room] because it offers a path to mitigate the risk of exposure to SARS-CoV-2 and protect the most important resource in health care: physicians, surgeons, nurses, and other health care personnel."

[NEJM](#): A Trial of Lopinavir–Ritonavir in Adults Hospitalized with Severe Covid-19 (07 May 2020)

"A total of 199 patients with laboratory-confirmed SARS-CoV-2 infection underwent randomization; 99 were assigned to the lopinavir–ritonavir group, and 100 to the standard-care group. Treatment with lopinavir–ritonavir was not associated with a difference from standard care in the time to clinical improvement (hazard ratio for clinical improvement, 1.31; 95% CI: 0.95–1.80). Mortality at 28 days was similar in the lopinavir–ritonavir group and the standard-care group (19.2% vs. 25.0%; difference, –5.8 percentage points; 95% CI: –17.3–5.7)."

"In hospitalized adult patients with severe Covid-19, no benefit was observed with lopinavir–ritonavir treatment beyond standard care. Future trials in patients with severe illness may help to confirm or exclude the possibility of a treatment benefit."

[Ann Intern Med](#): Autopsy Findings and Venous Thromboembolism in Patients With COVID-19: A Prospective Cohort Study (06 May 2020)

" Autopsy revealed deep venous thrombosis in 7 of 12 patients (58%) in whom venous thromboembolism was not suspected before death; pulmonary embolism was the direct cause of death in 4 patients.... In all patients, SARS–CoV-2 RNA was detected in the lung at high concentrations; viremia in 6 of 10 and 5 of 12 patients demonstrated high viral RNA titers in the liver, kidney, or heart...."

"The high incidence of thromboembolic events suggests an important role of COVID-19–induced coagulopathy. Further studies are needed to investigate the molecular mechanism and overall clinical incidence of COVID-19–related death, as well as possible therapeutic interventions to reduce it."

[JAMA](#): Interpreting Diagnostic Tests for SARS-CoV-2 (06 May 2020)

"This Viewpoint describes how to interpret 2 types of diagnostic tests commonly in use for SARS-CoV-2 infections—reverse transcriptase–polymerase chain reaction (RT-PCR) and IgM and IgG enzyme-linked immunosorbent assay (ELISA)—and how the results may vary over time."

[JAMA Netw Open](#): Estimated Demand for US Hospital Inpatient and Intensive Care Unit Beds for Patients With COVID-19 Based on Comparisons With Wuhan and Guangzhou, China (06 May 2020)

"In this comparative effectiveness study, higher inpatient and intensive care unit utilization in Wuhan was compared with lower utilization in Guangzhou, which implemented strict social distancing measures as well as contact tracing and quarantine protocols earlier than Wuhan. The projected number of prevalent critically ill patients at the peak of a Wuhan-like outbreak in US cities was estimated to range from 2.2 to 4.4 per 10,000 adults, depending on differences in age distribution and comorbidity (ie, hypertension) prevalence...."

"The findings of this study suggest that strict disease control strategies should be implemented early to mitigate the demand for inpatient and intensive care unit beds during a coronavirus disease 2019 outbreak."

[BMJ](#): Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis (05 May 2020)

"Risk factors for psychological distress included being younger, being more junior, being the parents of dependent children, or having an infected family member. Longer quarantine, lack of practical support, and stigma also contributed. Clear communication, access to

adequate personal protection, adequate rest, and both practical and psychological support were associated with reduced morbidity."

[Int J Antimicrob Agents](#): SARS-COV-2 was already spreading in France in late December 2019 (01 May 2020)

"The COVID-19 epidemic is believed to have started in late January 2020 in France. We report here a case of a patient hospitalized in December 2019 in our intensive care, of our hospital in the north of Paris, for hemoptysis with no etiological diagnosis and for which RT-PCR was performed retrospectively on the stored respiratory sample which confirmed the diagnosis of COVID-19 infection. Based on this result, it appears that the COVID-19 epidemic started much earlier."

Grey Literature – preprints, special reports, white papers, and other non-peer-reviewed publications

[JHCHS](#): Operational Toolkit for Businesses Considering Reopening or Expanding Operations in COVID-19 (06 May 2020)

"This operational toolkit has been developed to help business owners who are considering reopening or expanding their operations to determine their establishments' risk of transmission of COVID-19 and how to reduce it. The Operational Toolkit consists of 3 parts: an instruction manual; a business risk worksheet; and an assessment calculator."

[amfAR](#): Assessing Differential Impacts of COVID-19 on Black Communities (02 May 2020)

"Discrete state and city data sources show that Black Americans may be at elevated risk for COVID-19 infection and death, but (as of April 15, 2020) the race/ethnicity of 78% of current diagnoses nationally were 'unknown'. Because alternative methods are needed to estimate the impact of COVID-19 in black communities, we compared COVID-19 cases and deaths in above average (i.e. > 13% of the population) black counties versus all other US counties. Roughly one in five counties nationally is disproportionately black and only represent 35% of the US population, but we found that these counties accounted for nearly half of COVID-19 cases and 58% of COVID-19 deaths. Structural factors including health care access, density of households, unemployment, pervasive discrimination and others drive these disparities, not intrinsic characteristics of black communities or individual-level factors."

See also: <https://ehe.amfar.org/inequity>

In Brief

The New Normal

"As we continue to learn about this virus and how to mitigate its risk, the widespread public health measures you are actively, practicing--physical distancing, face coverings, minimizing group events, frequent hand-washing, sound sanitation practices, a questioning attitude on how we are feeling – must be our new normal" ([CNO](#)).

Noteworthy

Three Russian physicians who complained working conditions during the pandemic fell out of windows – 2 died and the third remains in intensive care in serious condition ([Time](#)).

Genetic tracking of the virus suggests that many outbreaks around the US were seeded by travel from New York City before restrictions were in place ([NYT](#)).

The former head of the Biomedical Advanced Research and Development Authority has filed a whistleblower complaint alleging he was reassigned because he tried to "prioritize science and safety over political expediency" ([WashPo](#)).

Ripple Effects

"COVID-19 pandemic and resulting lockdowns could have a devastating impact on the global tuberculosis burden in the coming years" ([CIDRAP](#)).

With schools out, a critical link in reporting child maltreatment and monitoring well-being has been lost ([STAT](#)).

In case you needed more to worry about, stagnant water in unused buildings can harbor infectious bacteria and heavy metals ([Nature](#)).

"We feel helpless, misled, and let down by the people who were supposed to protect us—and we'll need a different kind of vaccine for that" ([Rolling Stone](#)).

Controlling Information

A journalist was removed from Egypt for reporting on COVID-19 ([CJR](#)).

China is questioning and detaining people who have information that challenges official reports of the outbreak ([NPR](#)).

The second in a series of viewpoint papers looks at crisis communication and how to plan and implement effective messaging during the pandemic ([CIDRAP](#)).

Communities of color carry an unequal burden of disease with COVID-19, and messages need to be more culturally sensitive to reach them ([SciAm](#)).

Looking Ahead

Planned for upcoming reports: new therapies; special topic on ethics during pandemics; and any other submitted requests.

References

Statistics

DOD Department of Defense, Navy. US Navy COVID-19 updates (accessed 28 April 2020). Link: <https://navylive.dodlive.mil/2020/03/15/u-s-navy-covid-19-updates/>

JHU CSSE: Johns Hopkins Center for Systems Science and Engineering. Coronavirus COVID-19 Global Cases. Link: <https://coronavirus.jhu.edu/map.html>

VA DOH: Virginia Department of Health. COVID-19 in Virginia, updated daily. Link: <http://www.vdh.virginia.gov/coronavirus/>

Quarantine

Ann Intern Med: Lauer SA, Grantz KH, Bi Q, Jones FK, Zheng Q, Meredith HR, Azman AS, Reich NG, Lessler J. The Incubation Period of Coronavirus Disease 2019 (COVID-19) From Publicly Reported Confirmed Cases: Estimation and Application. Ann Intern Med. 2020 Mar 10. doi: 10.7326/M20-0504. [Epub ahead of print] PubMed PMID: 32150748; PubMed Central PMCID: PMC7081172. Link: <https://annals.org/aim/fullarticle/2762808/incubation-period-coronavirus-disease-2019-covid-19-from-publicly-reported>

CDC: Centers for Disease Control and Prevention. Criteria for Return to Work for Healthcare Personnel with Suspected or Confirmed COVID-19 (Interim Guidance) (accessed 07 May 2020). Link: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/return-to-work.html>

CDC: Centers for Disease Control and Prevention. History of Quarantine (accessed 07 May 2020). Link: <https://www.cdc.gov/quarantine/historyquarantine.html>

CDC: Centers for Disease Control and Prevention. Interim Operational Considerations for Public Health Management of Healthcare Workers Exposed to or Infected with COVID-19: non-US Healthcare Settings (accessed 07 May 2020). Link: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/non-us-settings/public-health-management-hcw-exposed.html>

CMAJ: Varia M, Wilson S, Sarwal S, McGeer A, Gournis E, Galanis E, Henry B; Hospital Outbreak Investigation Team. Investigation of a nosocomial outbreak of severe acute respiratory syndrome (SARS) in Toronto, Canada. CMAJ. 2003 Aug 19;169(4):285-92. PubMed PMID:

12925421; PubMed Central PMCID: PMC180651. Link:

<http://www.cmaj.ca/cgi/pmidlookup?view=long&pmid=12925421>

ECDC: European Centre for Disease Prevention and Control. Contact tracing: Public health management of persons, including healthcare workers, having had contact with COVID-19 cases in the European Union - second update (09 April 2020). Link:

https://www.ecdc.europa.eu/sites/default/files/documents/Contact-tracing-Public-health-management-persons-including-healthcare-workers-having-had-contact-with-COVID-19-cases-in-the-European-Union%E2%80%93second-update_0.pdf

Emerg Infect Dis: Tognotti E. Lessons from the history of quarantine, from plague to influenza A. Emerg Infect Dis. 2013 Feb;19(2):254-9. doi: 10.3201/eid1902.120312. PubMed PMID:

23343512; PubMed Central PMCID: PMC3559034. Link:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3559034/pdf/12-0312.pdf>

Euro Surveill: Backer JA, Klinkenberg D, Wallinga J. Incubation period of 2019 novel coronavirus (2019-nCoV) infections among travellers from Wuhan, China, 20-28 January 2020. Euro Surveill. 2020 Feb;25(5). doi: 10.2807/1560-7917.ES.2020.25.5.2000062. PubMed PMID: 32046819;

PubMed Central PMCID: PMC7014672. Link:

<https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2020.25.5.2000062>

HHS: US Department of Health and Human Services. What diseases are subject to Federal isolation and quarantine law? (accessed 07 May 2020). Link:

<https://www.hhs.gov/answers/public-health-and-safety/what-diseases-are-subject-to-federal-isolation-and-quarantine-law/index.html>

J Clin Med: Linton NM, Kobayashi T, Yang Y, Hayashi K, Akhmetzhanov AR, Jung SM, Yuan B, Kinoshita R, Nishiura H. Incubation Period and Other Epidemiological Characteristics of 2019 Novel Coronavirus Infections with Right Truncation: A Statistical Analysis of Publicly Available Case Data. J Clin Med. 2020 Feb 17;9(2). pii: E538. doi: 10.3390/jcm9020538. PubMed PMID: 32079150; PubMed Central PMCID: PMC7074197. Link: <https://www.mdpi.com/2077-0383/9/2/538>

Lancet Infect Dis: Lessler J, Reich NG, Brookmeyer R, Perl TM, Nelson KE, Cummings DA. Incubation periods of acute respiratory viral infections: a systematic review. Lancet Infect Dis. 2009 May;9(5):291-300. doi: 10.1016/S1473-3099(09)70069-6. Review. PubMed PMID: 19393959; PubMed Central PMCID: PMC4327893. Link:

<https://www.ncbi.nlm.nih.gov/pmc/articles/pmid/19393959/>

NEJM: Li Q, Guan X, Wu P, Wang X, Zhou L, Tong Y, Ren R, Leung KSM, Lau EHY, Wong JY, Xing X, Xiang N, Wu Y, Li C, Chen Q, Li D, Liu T, Zhao J, Liu M, Tu W, Chen C, Jin L, Yang R, Wang Q, Zhou S, Wang R, Liu H, Luo Y, Liu Y, Shao G, Li H, Tao Z, Yang Y, Deng Z, Liu B, Ma Z, Zhang Y, Shi G, Lam TTY, Wu JT, Gao GF, Cowling BJ, Yang B, Leung GM, Feng Z. Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected Pneumonia. N Engl J Med. 2020 Mar

26;382(13):1199-1207. doi: 10.1056/NEJMoa2001316. Epub 2020 Jan 29. PubMed PMID: 31995857; PubMed Central PMCID: PMC7121484. Link: <https://www.nejm.org/doi/10.1056/NEJMoa2001316>

PBS: Peter Tyson. NOVA: A Short History of Quarantine (12 October 2004). Link: <https://www.pbs.org/wgbh/nova/article/short-history-of-quarantine/>

Sci Rep: Virlogeux V, Fang VJ, Park M, Wu JT, Cowling BJ. Comparison of incubation period distribution of human infections with MERS-CoV in South Korea and Saudi Arabia. Sci Rep. 2016 Oct 24;6:35839. doi: 10.1038/srep35839. PubMed PMID: 27775012; PubMed Central PMCID: PMC5075793. Link: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5075793/>

ScienceAlert: Leslie S Leighton. The History of Quarantines to Isolate The Sick Dates Back Thousands of Years (04 February 2020). Link: <https://www.sciencealert.com/quarantines-have-been-used-to-try-keep-diseases-at-bay-for-thousands-of-years>

WashPo: Washington Post. Josh Hicks. A brief history of quarantines in the United States (07 October 2014). Link: <https://www.washingtonpost.com/news/federal-eye/wp/2014/10/07/a-brief-history-of-quarantines-in-the-united-states/>

WHO: World Health Organization. Risk assessment and management of exposure of health care workers in the context of COVID-19 – Interim Guidance (19 March 2020). Link: https://apps.who.int/iris/bitstream/handle/10665/331496/WHO-2019-nCov-HCW_risk_assessment-2020.2-eng.pdf

Summaries from Other Sources

CEBM: Centre for Evidence-Based Medicine, University of Oxford. Allsop M, Ziegler L, Fu Y, Rudd S, Bennett MI. Is oxygen an effective treatment option to alleviate the symptoms of breathlessness for patients dying with COVID-19 and what are the potential harms? (07 May 2020) Link: <https://www.cebm.net/covid-19/is-oxygen-an-effective-treatment-option-to-alleviate-the-symptoms-of-breathlessness-for-patients-dying-with-covid-19-and-what-are-the-potential-harms/>

CEBM: Centre for Evidence-Based Medicine, University of Oxford. McCall MC, Nunan D, Heneghan C. Is a 14-day quarantine effective against the spread of COVID-19? (06 April 2020) Link: <https://www.cebm.net/covid-19/is-a-14-day-quarantine-effective-against-the-spread-of-covid-19/>

Selected Primary Literature

amfAR: Millett GA, Jones AT, Benkeser, D, et al. Assessing Differential Impacts of COVID-19 on Black Communities (02 May 2020). Link:

https://ehe.amfar.org/Assessing%20Differential%20Impacts%20of%20COVID-19%205-3-20_final.pdf

Ann Intern Med: Wichmann D, Sperhake JP, Lütgehetmann M, Steurer S, Edler C, Heinemann A, Heinrich F, Mushumba H, Kniep I, Schröder AS, Burdelski C, de Heer G, Nierhaus A, Frings D, Pfefferle S, Becker H, Bredereke-Wiedling H, de Weerth A, Paschen HR, Sheikhzadeh-Eggers S, Stang A, Schmiedel S, Bokemeyer C, Addo MM, Aepfelbacher M, Püschel K, Kluge S. Autopsy Findings and Venous Thromboembolism in Patients With COVID-19: A Prospective Cohort Study. Ann Intern Med. 2020 May 6. doi: 10.7326/M20-2003. [Epub ahead of print] PubMed PMID: 32374815. Link: <https://annals.org/aim/fullarticle/2765934/autopsy-findings-venous-thromboembolism-patients-covid-19-prospective-cohort-study>

BMJ: Kisely S, Warren N, McMahon L, Dalais C, Henry I, Siskind D. Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis. BMJ. 2020 May 5;369:m1642. doi: 10.1136/bmj.m1642. PubMed PMID: 32371466. Link: <https://www.bmj.com/content/369/bmj.m1642>

Int J Antimicrob Agents: Deslandes A, Berti V, Tandjaoui-Lambotte Y, Alloui C, Carbonnelle E, Zahar JR, Briclher S, Cohen Y. SARS-COV-2 was already spreading in France in late December 2019. Int J Antimicrob Agents. 2020 May 1:106006. doi: 10.1016/j.ijantimicag.2020.106006. [Epub ahead of print] PubMed PMID: 32371096. Link:

<https://www.sciencedirect.com/science/article/pii/S0924857920301643>

JAMA: Livingston EH. Surgery in a Time of Uncertainty: A Need for Universal Respiratory Precautions in the Operating Room. JAMA. 2020 May 7. doi: 10.1001/jama.2020.7903. [Epub ahead of print] PubMed PMID: 32379271. Link:

<https://jamanetwork.com/journals/jama/fullarticle/2765945>

JAMA: Sethuraman N, Jeremiah SS, Ryo A. Interpreting Diagnostic Tests for SARS-CoV-2. JAMA. 2020 May 6. doi: 10.1001/jama.2020.8259. [Epub ahead of print] PubMed PMID: 32374370.

Link: <https://jamanetwork.com/journals/jama/fullarticle/2765837>

JAMA Netw Open: Li R, Rivers C, Tan Q, Murray MB, Toner E, Lipsitch M. Estimated Demand for US Hospital Inpatient and Intensive Care Unit Beds for Patients With COVID-19 Based on Comparisons With Wuhan and Guangzhou, China. JAMA Netw Open. 2020 May 1;3(5):e208297. doi: 10.1001/jamanetworkopen.2020.8297. PubMed PMID: 32374400. Link:

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/10.1001/jamanetworkopen.2020.8297>

JHCHS: Johns Hopkins Center for Health Security. Mullen L, Kobokovich A, Trotochaud M, Sell TK, Rivers C, Martin E, Cicero A, Inglesby T, Watson C. Operational Toolkit for Businesses

Considering Reopening or Expanding Operations in COVID-19 (06 May 2020). Link: <https://www.centerforhealthsecurity.org/our-work/publications/operational-toolkit-for-businesses-considering-reopening-or-expanding-operations-in-covid-19>

NEJM: Cao B, Wang Y, Wen D, Liu W, Wang J, Fan G, Ruan L, Song B, Cai Y, Wei M, Li X, Xia J, Chen N, Xiang J, Yu T, Bai T, Xie X, Zhang L, Li C, Yuan Y, Chen H, Li H, Huang H, Tu S, Gong F, Liu Y, Wei Y, Dong C, Zhou F, Gu X, Xu J, Liu Z, Zhang Y, Li H, Shang L, Wang K, Li K, Zhou X, Dong X, Qu Z, Lu S, Hu X, Ruan S, Luo S, Wu J, Peng L, Cheng F, Pan L, Zou J, Jia C, Wang J, Liu X, Wang S, Wu X, Ge Q, He J, Zhan H, Qiu F, Guo L, Huang C, Jia T, Hayden FG, Horby PW, Zhang D, Wang C. A Trial of Lopinavir-Ritonavir in Adults Hospitalized with Severe Covid-19. N Engl J Med. 2020 May 7;382(19):1787-1799. doi: 10.1056/NEJMoa2001282. Epub 2020 Mar 18. PubMed PMID: 32187464; PubMed Central PMCID: PMC7121492. Link: <https://www.nejm.org/doi/full/10.1056/NEJMoa2001282>

In Brief

CIDRAP: Center for Infectious Disease Research and Policy. Sandman PM, Lanard J. COVID-19: The CIDRAP Viewpoint – Part 2: Effective COVID-19 Crisis Communication (06 May 2020). Link: <https://www.cidrap.umn.edu/sites/default/files/public/downloads/cidrap-covid19-viewpoint-part2.pdf>

CIDRAP: Chris Dall. Experts warn COVID-19 lockdowns could have dire impact on TB (06 May 2020). Link: <https://www.cidrap.umn.edu/news-perspective/2020/05/experts-warn-covid-19-lockdowns-could-have-dire-impact-tb>

CJR: Columbia Journalism Review. Ruth Michaelson. Pushed out of Egypt for COVID-19 reporting (07 May 2020). Link: https://www.cjr.org/first_person/guardian-covid-19-reporter-egypt.php

CNO: Chief of Naval Operations, Adm. Mike Gilday. CNO Message to the Fleet (06 May 2020). Link: https://www.navy.mil/submit/display.asp?story_id=112881

Nature: Giuliana Viglione. As lockdowns lift, new hazards lurk in the water (28 April 2020). Link: <https://www.nature.com/articles/d41586-020-01286-9>

NPR: National Public Radio. Emily Feng. China Says It Contained COVID-19. Now It Fights To Control The Story (07 May 2020). Link: <https://www.npr.org/2020/05/07/851255361/china-says-it-contained-covid-19-now-it-fights-to-control-the-story>

NYT: New York Times. Benedict Carey and James Glanz. Travel From New York City Seeded Wave of U.S. Outbreaks (07 May 2020). Link: <https://www.nytimes.com/2020/05/07/us/new-york-city-coronavirus-outbreak.html>

Rolling Stone: Elizabeth Yuko. COVID-19 Is Traumatizing All of Us. How Will We Cope After It's Over? (05 May 2020). Link: <https://www.rollingstone.com/culture/culture-features/covid-19-coronavirus-collective-trauma-memorial-monument-history-994173/>

SciAm: Scientific American blog. Margaret S. Pichardo, Briana Christophers, and Gezzar Ortega. The COVID-19 Response Is Failing Communities of Color (07 May 2020). Link: <https://blogs.scientificamerican.com/voices/the-covid-19-response-is-failing-communities-of-color/>

STAT: STATnews. Paula Magee. Child abuse is one of many unseen harms from shutting down America's schools (07 May 2020). Link: <https://www.statnews.com/2020/05/07/child-abuse-unseen-harms-shutting-down-schools/>

Time: Daria Litvinova. Reports: In Three Separate Incidents, Russian Doctors Fall From Hospital Windows After Coronavirus PPE Complaints (06 May 2020). Link: <https://time.com/5832752/russia-coronavirus-doctors-deaths/>

WashPo: Yasmeen Abutaleb and Laurie McGinley. Ousted vaccine official alleges he was demoted for prioritizing 'science and safety' (05 May 2020). Link: <https://www.washingtonpost.com/health/2020/05/05/rick-bright-hydroxychloroquine-whistleblower-complaint/>